

### REMARKS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 9-21 are pending. Claims 9, 12-14, 19, and 20 are amended. No new matter is added.

In the outstanding Office Action, Claim 9 was rejected under 35 U.S.C. § 103(a) as unpatentable over the Applicant's Figure 8 in view of Richley (US Patent No. 7,412,007); Claims 10 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over Figure 8 in view of Richley and Kaczynski (US Patent Application Publication No. 2007/0111684); Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as unpatentable over Figure 8 in view of Richley, Shohara (US Patent Application Publication No. 2005/0078743) and Wilhelmsson (US Patent Application Publication No. 2007/0211831); Claims 14-18 were rejected under 35 U.S.C. § 103(a) as being over Figure 8 in view of Modafferi (US Patent No. 4,771,466); and Claims 19 and 20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Figure 8, Richley, Shohara, Wilhelmsson and Modafferi.

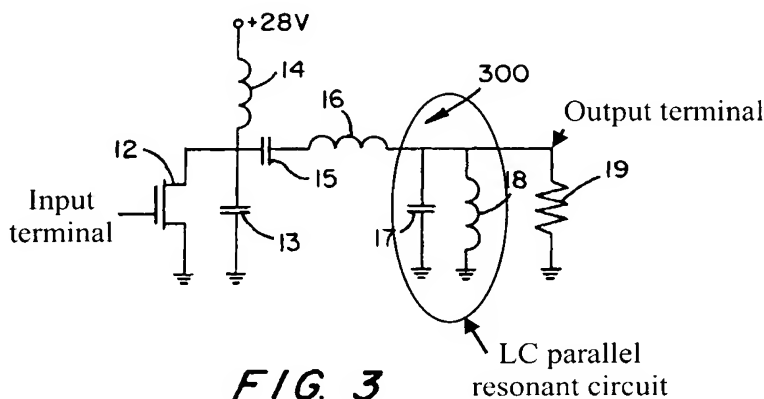
The Office Action Summary sheet states that Claim 9-21 are rejected, but Claim 21 has not been rejected. Since Claim 21 was previously objected to as depending from a canceled claim, but otherwise indicated as allowable, and since Claim 21 has been amended to correct the dependency, it is presumed that Claim 21 is considered allowable.

In the independent claims, the phrase "in series" has been deleted for clarification. Figure 1 shows "an amplification device connected between the input terminal and the output terminal," as now claimed. No new matter is added.

Applicant respectfully traverses the rejection of Claim 9 under 35 U.S.C. § 103(a) as unpatentable over Applicant's Figure 8 in view of Richley.

The rejection finds that Applicant's Figure 8 discloses the claimed subject matter except for "an LCR series resonant circuit connected between the output terminal and the ground terminal in parallel to the amplification device and the LC parallel resonant circuit." Final Office Action at 2-3. The rejection finds that Figure 3 of Richley teaches an LCR series resonant circuit (elements 15, 16, and 19) connected between the output terminal and ground in parallel with the amplification device (element 12) and a LC parallel resonant circuit (elements 24 and 25). Final Office Action at 3. The rejection concludes that it would have been obvious to incorporate the LCR series resonant circuit of Richley into the circuit of Figure 8 "for tuning purpose." Final Office Action at 3.

Applicants respectfully disagree. Richley's Figure 3 is reproduced below for discussion. Resistor 19 is the output impedance and the output terminal would be as shown.



First, the capacitor 15 and inductor 16, which the rejection considers part of the LCR series resonant circuit, are in series between the output terminal and the amplification device 12, which is clearly contrary to the limitation of "an output of the amplification device being *directly connected* to the output terminal" (emphasis added), in Claim 1. It is a well known principle that, in deciding the question of obviousness under 35 U.S.C. § 103, it is not

proper to pick and choose from any one reference only so much as it will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fully suggests to one of ordinary skill in the art. *In re Lunsford*, 357 F.2d 380, 384, 148 USPQ 716, 719-20 (CCPA 1966); *SmithKline Diagnostics, Inc. v. Helena Laboratories Corp.*, 859 F.2d 878, 887, 8 USPQ2d 1468, 1475 (Fed. Cir. 1988) (a challenger to the validity of a patent "cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention"; the challenger "has the burden to show some teaching or suggestion in the references to support their use in the particular claimed combination."). Any modification of Figure 8 in view of Figure 3 of Richley would necessarily have the configuration of elements in Richley's Figure 3, absent additional reasoning why one of ordinary skill in the art would have been led to select only some components and exclude others. The arrangement of capacitor 15 and inductor 16 is necessary to the resonant operation of Richley's circuit and there is no reason on the record why these elements would not be included in the modification.

*Second*, while Richley teaches "an LC parallel resonant circuit connected between the output terminal and a ground terminal in parallel to the amplification device," Richley does not teach "an LCR series resonant circuit connected between the output terminal and the ground terminal in parallel to the amplification device and the LC parallel resonant circuit." By definition, the same amount of current flows through all parts of a series circuit and this is not true of the arrangement of 15, 16, and 19. The capacitor 15 and inductor 16 are in series between the output terminal and the amplification device 12, but the capacitor, inductor, and resistor are not in series with each other in the same branch of the circuit (the same current does not flow in the resistor as in the capacitor and inductor), which branch has to be in parallel with the LC circuit, as claimed. Thus, the proposed modification of Applicant's Figure 8 in view of Richley does not produce the claimed invention.

*Third*, the mere fact that Richley shows a resonant circuit with a resistor, capacitors, and inductors provides no motivation for the proposed modification. Obviously, circuits having resistors, capacitors, and inductors were well known--the issue is whether the particular claimed arrangement would have been obvious. The stated motivation, that the references would be combined "for tuning purpose," Final Office Action at 3, is so general that it does not provide specific reasoning for one skilled in the art to take some circuit elements out of Richley and combine them with the circuit in Appellant's Figure 8 to arrive at the claimed invention. For example, there is no suggestion that Richley recognized the problem that is overcome by Appellant's invention or that the problem could be overcome by the claimed circuit arrangement, which is not shown in Richley.

For these reasons, the proposed combination of Richley with Applicant's Figure 8 fails to establish a *prima facie* case of obviousness relative to Claim 9. Accordingly, it is respectfully requested that the rejection of Claim 9 under 35 U.S.C. § 103(a) be withdrawn.

Applicant also respectfully traverses the rejection of Claim 14-18 under 35 U.S.C. § 103(a) as unpatentable over Applicant's Figure 8 in view of Modafferi.

The rejection finds that Applicant's Figure 8 discloses the claimed subject matter except for "an analog band-pass filter connected between the output terminal and a ground terminal in parallel to the amplification device, the analog band-pass filter having a plurality of poles provided on a left side of an s-plane and a plurality of zeros arranged between the poles, at least two zeros being arranged at locations other than an origin of the s-plane." Final Office Action at 7. The rejection finds that "Modafferi discloses a band pass filter with s-plane in which the plurality of pole is provided and zero are provided between the pole (col. 5, lines 50-57 and fig. 4, 5, 6, 12, 13." Final Office Action at 7-8. The rejection concludes that it would have been obvious to "utilize the limitation of Modafferi into the limitation of Admission in order to eliminate distortion." Final Office Action at 8.

Claim 14 recites an amplification device, the "output of the amplification device being *directly connected* to the output terminal." Although Figure 8 teaches this feature, the rejection modifies Figure 8 in view of Modafferi. The combination of Figure 8 with Modafferi would violate this limitation. Again, it is not proper to pick and choose from any one reference only so much as it will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fully suggests to one of ordinary skill in the art. *Lunsford, supra; SmithKline, supra*.

Modafferi describes a loudspeaker crossover system that approximates an ideal all pass filter transfer function. Col. 5:1-5. Modafferi describes selecting topologies and components to implement a pole-zero response to achieve very high passband band edge amplitude vs. frequency response slopes. Col. 5:50-57. The crossover circuits and pole-zero plots are shown, for example, in Figures 4-6. The pole-zero plots are a result of the whole circuit and the circuits have series components, such as  $C_1$  and  $C_2$  in Figure 4,  $L_3$  and  $C_4$  in Figure 5, and  $L_7$  and  $L_8$  in Figure 6. If the circuit teachings of Modafferi were incorporated into Applicant's Figure 8, all of these elements would have to be incorporated into Figure 8 including the series components--it is improper picking and choosing to only incorporate parts of the circuit absent some teaching or evidence in the record as to why one of ordinary skill in the art would be motivated to do this. If the circuits of Modafferi were incorporated into Applicant's Figure 8, the combination would not meet the limitation of the "output of the amplification device being *directly connected* to the output terminal" because of the series components. As a further observation, since the pole-zero plots in Modafferi are a result of the whole circuit, including the series components, it cannot be assumed without analysis that the claimed pole-zero limitations would be met if the series elements were removed.

Because the incorporation of the circuit in Modafferi into Applicant's Figure 8 would not have the "output of the amplification device being *directly connected* to the output

terminal," the combination fails to establish a *prima facie* case of obviousness relative to Claim 14. Accordingly, it is respectfully requested that the rejection of Claims 14-18 under 35 U.S.C. § 103(a) be withdrawn.

Kaczynski does not cure the deficiencies of Applicant's Figure 8 and Richley with respect to the rejection of Claim 9. Accordingly, it is respectfully requested that the rejection of dependent Claims 10 and 11 under 35 U.S.C. § 103(a) be withdrawn.

Claims 12 and 13 contain similar limitations to Claim 9. Shohara and Wilhelmsson do not cure the deficiencies of Applicant's Figure 8 and Richley with respect to these limitations. Accordingly, it is respectfully requested that the rejection of Claims 12 and 13 under 35 U.S.C. § 103(a) be withdrawn.

Claims 19 and 20 contain similar limitations to Claim 14. Shohara and Wilhelmsson do not cure the deficiencies of Applicant's Figure 8 and Modafferi with respect to these limitations. Accordingly, it is respectfully requested that the rejection of Claims 19 and 20 under 35 U.S.C. § 103(a) be withdrawn.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance for Claims 9-21 is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, L.L.P.



Bradley D. Lytle  
Attorney of Record  
Registration No. 40,073

Scott A. McKeown  
Registration No. 42,866

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/09)